

1. A method for transmitting a message from a sender to an intended recipient comprising:

encrypting a message using a symmetric key;

sending the encrypted message to an intended recipient without the symmetric key;

5 providing the symmetric key to a third party; and

if the intended recipient signs and returns to the third party a receipt for the message, transferring, by the third party, the receipt to the sender and providing the symmetric key to the intended recipient.

10 2. The method of claim 1, wherein the receipt signed by the recipient contains an identifier computed from the message and the symmetric key using cryptographically secure hash functions.

3. A method for transmitting a message from a sender to an intended recipient comprising:

at the sender, encrypting a message using a symmetric key, encrypting the symmetric key to make the symmetric key accessible to a third party but not to a recipient and sending the encrypted message and the encrypted symmetric key to an intended recipient;

at the recipient, signing a receipt for the message and sending the receipt and the encrypted symmetric key to the third party; and

at the third party, transferring the receipt to the sender and providing the symmetric key to the intended recipient if the receipt is properly signed.

4. A method for certifying receipt of a message, the message being sent from a sender to an intended recipient and being encrypted by a symmetric key, the symmetric key being encrypted to be only accessible to the third party, and the method executing at a third party distinct from the sender and the recipient, the method comprising:

receiving a signed receipt and the encrypted symmetric key from an intended recipient, the signed receipt memorializing receipt of the encrypted message by the intended recipient;

verifying the signed receipt;
transferring the verified receipt to the sender; and
providing the symmetric key to the intended recipient.

5 5. A method for certifying receipt of a message, the message being sent from a sender to an intended recipient and being encrypted by a symmetric key, the message including a separately encrypted message header including the symmetric key and a message identifier associated with the message, the method executing at a third party distinct from the sender and the recipient, the method comprising:

10 receiving a separately encrypted message header and a certified receipt originating from the intended recipient, the certified receipt including the message identifier signed by the recipient;

decrypting the separately encrypted message header to expose the symmetric key and the message identifier;

15 verifying the certified receipt including verifying the signature of the intended recipient and the message identifier in the certified receipt is the same as the message identifier obtained from the separately encrypted message header;

forwarding the certified receipt to the sender; and

forwarding the symmetric key to the intended recipient.

20 6. A method for transmitting a message from a sender to an intended recipient comprising:

encrypting a message using a symmetric key;

storing the symmetric key and the message;

25 sending the encrypted message to an intended recipient without the symmetric key;

forwarding the encrypted symmetric key to a third party;

receiving from the third party a certified receipt verified by the third party indicating receipt of the message by the intended recipient; and

30 verifying the validity of the certified receipt using the stored symmetric key and the certified message.

7. A method for transmitting a message from a sender to an intended recipient comprising:

identifying a message for transmission to an intended recipient;

5 creating a message header that includes a symmetric key and a message identifier associated with the message;

encrypting the message using the symmetric key;

public key encrypting the message header using a public key of a third party;

attaching the message header to the encrypted message forming a certified message

10 and forwarding the certified message to the intended recipient;

storing a copy of the certified message and the symmetric key;

receiving a certified receipt originating from the intended recipient, the certified receipt being verified at the third party and forwarded to the sender after verification; and

15 verifying the validity of the receipt using the stored symmetric key and the certified message.

8. A method for providing a receipt for a message, the message being sent from a sender to an intended recipient and the method executing at the recipient, the method comprising:

20 receiving an encrypted message from the sender, the message encrypted by a symmetric key;

creating a receipt for the encrypted message including signing a hash of the encrypted message and returning the signed receipt to a third party; and

after verification of the signed receipt at the third party, receiving the symmetric key from the third party so that the intended recipient can decrypt the encrypted message.

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9. The method of claim 8, wherein the step of receiving the symmetric key includes not receiving the symmetric key until a successful transfer of the signed receipt to the sender.